

# CAPJET A TRENCHING SYSTEMS



The CAPJET systems was originally developed as a cable burial tool for shallow water jetting. The system was further developed for deeper water and the CAPJET performed the first remote controlled offshore operation in 1989. The requirement for burial in harder soil and trenching of flowlines has lead to an increase in power up to 1 MW.

Today Nexans operate three complete 1 MW trenching systems with handling systems and AHC electrical umbilical winches allowing operations in significant wave heights up to 3.5m. Optional equipment to enable deburial of products and backfill ploughs can be installed onboard to allow different operations without remobilizations. The Capjet systems are also able to perform as-trenched survey, further reducing the need for additional mobilization of equipment and personnel.

### Size & weight

Control container 1 x 20', 7 t  
Workshop 1 x 20', 4 t  
Transformer container 1 x 20', 13 t  
Storage container 1 x 20', 7 t  
Generators (optional) 2 x 20', 15-18 t each  
Umbilical winch 4.4 x 3 x 2.8 m, 30 t (1000m typ)  
Capjet 8 x 4 x 2.5 m, max 18 t

### Frame and lift structure

Titanium air filled structure  
pressure rating 2000 m  
Buoyancy (for North Sea operation) 1000 m or 1550 m.

### •Trenching module and water pumps

- Adjustable front and aft swords
- Vertical lifting 600 mm
- Horizontal adjustment of sword opening 200 mm
- 2 x 420 KW water pumps
- Pressure from 10 to 16 bar
- dependent of project requirement.

### Hydraulic system

2 x 150 HP HPU redundant systems  
1 x 6 HP dirty hydraulic  
10 x 17 thrusters (each 550 kg)

Bollard pull  
Forward approx 2000 kg  
Lateral 1000 kg  
Vertical 1000 kg  
all HPUs pressure software controlled

### Optional equipment

Backfill plough  
Ejector system  
Cable trenching to 3,2 m burial depth  
Tension system for all modules

### Handling system

Operation up to Hs 3.5 m vessel dependent  
Constant tension winch  
LARS 18 t SWL DAF 3.33. 3.5 x 5 x 11m, 42 T

### Control system

All data are collected on a serial to Ethernet drop down network which  
Gives local control of all sensors and valvepacks.  
The latest control system technology as OPC, distributed data collection, touchscreens and WEB based monitoring and support tools.  
The system can be fully supported through the internet and low speed connections.  
Realtime control system for transformer control, LARS and umbilical winch control and monitoring.  
Integration in vessel PMS when power from vessel available  
MRU monitoring

### Sensors (typical)

Six color video cameras  
Three off electrical P&T units  
Imaging sonar  
Digiquarts pressure sensor  
Digital yoke sensor  
Mesotech digital altimeter  
Octans fiberoptical survey gyro  
Position sensors on all hydraulic movements  
Doppler

### Sensors (Optional)

Cable tracker  
Multibeam  
INS  
3D Imaging sonar



More information, visit [www.nexans.com](http://www.nexans.com)